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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,425	01/12/2001	Bart F. Rice	18721-5695	2323

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EXAMINER
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AUGUSTIN, EVENS J

ART UNIT	PAPER NUMBER
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3621

MAIL DATE	DELIVERY MODE
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11/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/759,425

Applicant(s)

RICE, BART F.

Examiner

Evans Augustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 60-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 60-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**Detailed Action**

***Acknowledgment***

1. Request for Continued Examination under 37 CFR1.114, filed on August 20, 2007, has been acknowledged. This application was previously allowed on November 15, 2006. A notice of abandonment was mailed on March 28, 2007 because applicant failed to pay the appropriate allowance fees. Applicant filed a petition for revival on May 29, 2007. Petition was granted on August 22, 2007. Claims 60-77 are pending and have been examined.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requires of this title.

3. Claims 60-77 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
4. Because the claims are directed towards signals (see e.g. claim 60 which recites "An assembly of simultaneously transmitted signals", and claim 63 which recites "the assembly of simultaneously transmitted signals in claim 60), the claims are not directed towards any of the statutory classes of invention. Because the claims are not directed towards at least one statutory class of invention, the claims are rejected under 35 U.S.C. 101... See *In re Nuijten*, 84 USPQ2d 1495, 1500 (Fed. Cir. 2007). Claims 61 and 63 are being interpreted as product by process claims. Patentable is given to the product which is an assembly of simultaneously transmitted signals, and therefore are non-statutory.

***Claim Rejections - 35 USC § 112 – 2<sup>nd</sup> Paragraph***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 60 and 63-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. As per claims 60 and 63-77, the preamble of claim 60 recites "An assembly of simultaneously transmitted signals", but the body of the claim teaches a receiver generating signals. It is not clear whether the claims pertains to an assembly of signals or a receiver generating signals.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 60-77 are rejected under 35 U.S.C. 9 103 as being unpatentable over Frazier, Jr. or Kaufman et al in view of Short et al(all cited by applicant).

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10. Regarding claim 60, either Frazier. Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) disclose an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers and placed on a sinusoidal carrier substantially as claimed. The differences between the above and the claimed invention is the use of binary signals from shift registers which represent a portion of the information and sequences that change a various intervals. It is noted that the symbols Of the prior art described above show digital sequences representing symbols would be readable on the claim limitations.
11. It is further noted that all sequences change a various intervals since they require a finite time to output and describe a static or variable output. Short et al (See Figs. 2B-3) show a multibit sequences produces by a plurality of shift registers in a spread spectrum signal. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Frazier. Jr. or Kaufman et al because the digital signals and multibit sequences signals are conventional• functional equivalents. Regarding the receiver limitations of claim 61, either Frazier. Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with reception and transmission through a network which is a functional equivalent of the claim limitations. Regarding the network limitations, either Frazier. Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread

spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with reception and transmission through a network which is a functional equivalent of the claim limitations. Regarding the transmitter limitations of claim 5, either Frazier, Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al (See Fig. 2, 8, Col. 8 lines 20-6) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with reception and transmission through a network which is a functional equivalent of the claim limitations. Regarding the network limitations of claim 6, either Frazier, Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al (See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with reception and transmission through a network which is a functional equivalent of the claim limitations. Regarding plural sequence limitations, either Frazier, Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al (See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers which is a functional equivalent of the claim limitations. Regarding the phase limitations, either Frazier, Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al (See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers

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- with plural phase symbol (See Frazier. Jr., Col. 2, lines15-20, or Kaufman et al, Col. 8, lines25-40) spreading that is a functional equivalent of the claim limitations. Regarding
12. the phase limitations, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with plural phase symbol (See Frazier. Jr., Col. 2, lines15-20, or Kaufman et al, Col. 8, lines25-40) spreading which is a functional equivalent of the claim limitations. Regarding sequence limitations of claim i0, either Frazier. Jr.(See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45h-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers which is a functional equivalent of the claim limitations.
13. Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) disclose an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers and placed on a sinusoidal carrier substantially as claimed. The differences between the above and the claimed invention is the use of binary signals from shift registers that represent a portion of the information from transmission and reception nodes. It is noted that all sequences change a various intervals. It is noted that the symbols of the prior art described above show digital sequences representing symbols would be readable on the claim limitations. Short et al (See Figs. 2B-3) show a multibit sequences produces by a plurality of shift registers in a spread spectrum signal from transmission and reception nodes.

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It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Frazier. Jr. or Kaufman et al because the digital signals and multibit sequences signals are conventional functional equivalents. Regarding the receiver limitations of claim 30, either Frazier. Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with reception and transmission through a network which is a functional equivalent of the claim limitations. Regarding the network limitations of claim 31, either Frazier. Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with reception and transmission through a network which is a functional equivalent of the claim limitations. Regarding the transmitter limitations of claim 32, either Frazier. Jr. (See Figs. 6 and 7, Col. 6, lines 40-60, Col. 15, lines 45-60 and claims 12 and 15) or Kaufman et al(See Fig. 2, 8, Col. 8 lines 20-6 and claim i) show an assembly of spread spectrum signals created from a plurality of orthogonal pseudorandom sequences by storage in a plurality of shift registers with reception and transmission through a network which is a functional equivalent of the claim limitations.



**Conclusion**

14. *Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that if the applicant is preparing to respond, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.*
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evens Augustin whose telephone number is 571-272-6860. The examiner can normally be reached on Monday thru Friday 8 to 5 pm.
16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Fischer can be reached on 571-272-6779.

**/Evens J. Augustin/**  
Evens J. Augustin  
November 13, 2007  
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